Doctor MacDougal suggests that these prolongations of the leaf-axes may possibly be considered as degenerate terminal leaf-

lets. It is not easy to decide what they are historically or that they are not useful now to the plants that bear them.

RUTGERS COLLEGE, November 27, 1901.

A NEW TIMBER FOR RAILROAD TIES

By H. H. RUSBY

It is reported that the Pennsylvania Railroad Company has arranged for a great innovation, in the use of tropical timbers for

railroad ties. The wood which has been selected for this purpose is the "Mora" of Venezuela and the adjacent regions, not that of Central America. The botanical identity of this Venezuelan Mora is not positive. I have collected it in the lower Orinoco region, but not in a condition for specific identification. It is certainly a member of the Rosaceae and probably in the genus *Parinarium*. A fine large trunk-section exists in the Economic Museum of the New York Botanical Garden. It grows as a large forest tree, sometimes very large indeed, being four or five feet in diameter. Like most tropical trees, it grows scattering rather than gregarious. The wood is extremely hard and heavy and the bark thin and very smooth, considering the size of the tree, there being very little fissuring or bork-formation. The outer color of the bark is of a medium to dark gray, mottled with lighter patches. The wood cuts rather readily when fresh but becomes exceedingly difficult to work after it is seasoned. In the latter state it takes a somewhat purplish tinge, to which its name "Mora" is due. It is not only hard, but tough and very durable. It is due to the last-named property that its use has been decided upon. It is said to endure for a period of fifty years. It is to be remembered, however, that this durability record relates to a tropical climate. It might be assumed that it could resist decay even longer in a temperate region where certain influences are not so active as in the tropics. Upon the other hand it is to be remembered that wood in the tropics is not subject to the sudden and severe changes of temperature which must be undergone by railroad ties in this country, and the effects of which upon this wood are quite unknown. The result of this trial will prove of the greatest interest. If successful, there is no reason why numerous other hard tropical woods possessing the same properties, a number of them growing in the same region with this Mora, cannot be similarly utilized. It is stated that the cost of these ties will be about $1.50 each, which is just about double that of the ties now in use, but it seems to the writer very doubtful if the expense of securing them will not be considerably greater than this estimate.

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